

What is claimed is:

1. A surge protection element for use in a cable connector, comprising:
  - a printed circuit board including an inner ring and a first arm extending outward from said inner ring;
  - a first trace on at least a portion of said inner ring, said first trace being disposed such that said first trace is electrically connected to a signal portion of said cable connector when said surge protection element is installed in said cable connector; and
  - a second trace on at least a portion of said first arm, said second trace being disposed such that said second trace is electrically connected to a ground portion of said cable connector when said surge protection element is installed in said cable connector;wherein said first and second traces are separated by a spark gap.
2. A device according to claim 1, wherein said printed circuit board further includes a second arm, wherein said second arm is integral with said inner ring and said first arm.
3. A device according to claim 1, wherein said printed circuit board further includes a second arm, wherein said second arm is one-piece with said inner ring and said first arm.
4. A device according to claim 1, wherein said printed circuit board further includes at least a segment of an outer ring, wherein said segment is integral with said first arm.
5. A device according to claim 4, wherein said printed circuit board further includes a second arm, wherein said second arm is integral with said inner ring, said first arm, and said segment.
6. A device according to claim 4, wherein said printed circuit board further includes a second arm, wherein said second arm is one-piece with said inner ring, said first arm, and said segment.
7. A device according to claim 4, wherein said second trace is on at least a portion of said segment.

8. A device according to claim 4, wherein said printed circuit board further includes an outer ring integral with said first arm, wherein said inner and outer rings are concentric.
9. A device according to claim 8, wherein said second trace is on at least a portion of said outer ring.
10. A device according to claim 9, wherein said second trace is on all of one surface of said outer ring.
11. A device according to claim 8, wherein said printed circuit board further includes a second arm, wherein said second arm is integral with said inner ring, said first arm, and said outer ring.
12. A device according to claim 8, wherein said printed circuit board further includes a second arm, wherein said second arm is one-piece with said inner ring, said first arm, and said outer ring.
13. A device according to claim 1, wherein said surge protection element is positioned entirely within a cavity contained within said cable connector when said surge protection element is installed in said cable connector.
14. A device according to claim 1, wherein said first trace includes a first pointed end adjacent said spark gap, and said second trace includes second and third pointed ends adjacent said spark gap, with said second and third pointed ends defining a space between them where said first pointed end is positioned.
15. In a CATV system that includes a coaxial cable having a central conductor, an outer conductor concentrically positioned in surrounding relation thereto, and a dielectric layer disposed between the central and outer conductors, a high voltage surge protection device adapted for use in the CATV system, comprising:
  - a connection housing having a first end and a body portion that defines an internal cavity;
  - an electronic component positioned within said cavity; and

a surge protection element positioned entirely within said cavity and between said body portion and said electronic component, wherein said element includes a printed circuit board which includes an inner ring and a first arm extending outward from said inner ring; a first trace on at least a portion of said inner ring, said first trace being disposed such that said first trace is electrically connected to said electronic component; and

a second trace on at least a portion of said first arm, said second trace being disposed such that said second trace is electrically connected to said housing;

wherein said first and second traces are separated by a spark gap.

16. The high voltage surge protection device of claim 15, wherein said electrical component is electrically connected to a conductive pin extending therefrom that is electrically interconnected to said central conductor of said coaxial cable.

17. The high voltage surge protection device of claim 16, wherein said conductive pin includes a head which is physically and electrically connected to said first trace.